

Appl. No.: 10/057,034
Attorney Docket No.: 10541-1182
Reply to Office Action of August 14, 2003

II. Amendments to the Claims

1. (Currently Amended) A rotor assembly for an alternator comprising:

an electrical wire defining an excitation winding;

a first pole piece having a generally circular body defining an axis of rotation and an outer radial periphery;

a plurality of pole fingers spaced radially about and extending axially from said outer radial periphery parallel to said axis of rotation;

a plurality of permanent magnets positioned on said outer radial periphery;

a plurality of covers, each of said covers being configured as a box shape and defining a cavity adapted to substantially encase one of said permanent magnets therein and to be mounted to said outer radial periphery of said first pole piece to secure said permanent magnet to said first pole piece,

each of said covers having at least two tabs extending circumferentially from two sides thereof.

2. (Currently Amended) The rotor assembly of claim 1 further comprising:

a second pole piece having a generally circular body defining a center, and axis of rotation and an outer radial periphery, said axis of rotation of said second pole piece being coaxial with said axis of rotation of said first pole piece;

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a plurality of pole fingers spaced radially about said outer radial periphery of said second pole piece and extending axially from said outer radial periphery parallel to said axis of rotation;

a plurality of permanent magnets positioned on said outer radial periphery of said second pole piece;

a plurality of covers, each of said covers being configured as a box shape and defining a cavity adapted to substantially encase one of said permanent magnets therein and to be mounted to said outer radial periphery of said second pole piece to secure said permanent magnet to said second pole piece,

each of said covers having at least two tabs extending circumferentially from two sides thereof.

3. (Original) The rotor assembly of claim 2 wherein said first and second pole pieces each include a plurality of mounting surfaces spaced radially about said outer radial periphery between said pole fingers, wherein one of said plurality of permanent magnets is positioned on each of said mounting surfaces.

4. (Currently Amended) The rotor assembly of claim 3 wherein ~~each of said covers includes tabs extending therefrom and~~ said mounting surfaces are ~~adapted to engage~~ engaging said tabs to secure said covers, with said permanent magnets substantially encased therein, to said first and second pole pieces.

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5. (Currently Amended) The rotor assembly of claim 4 wherein said mounting surfaces include ribs ~~adapted to engage~~ engaging said tabs to secure said covers, with said permanent magnets substantially encased therein, to said first and second pole pieces.

6. (Currently Amended) The rotor assembly of claim 5 wherein said ribs are ~~adapted to be~~ staked over said tabs to secure said covers to said mounting surfaces.

7. (Currently Amended) The rotor assembly of claim 4 wherein each of said pole fingers of said first pole piece includes a distal end and extends between said pole fingers of said second pole piece, said distal ends being positioned over said mounting surfaces of said second pole piece and ~~adapted to engage~~ engaging said covers to further secure said permanent magnets onto said mounting surfaces.

8. (Currently Amended) The rotor assembly of claim 4 wherein each of said pole fingers of said second pole piece includes a distal end and extends between said pole fingers of said first pole piece, said distal ends being positioned over said mounting surfaces of said first pole piece and ~~adapted to engage~~ engaging said covers to further secure said permanent magnets onto said mounting surfaces.

9. (Original) The rotor assembly of claim 2 wherein said permanent magnets are secured within said covers with an adhesive.

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10. (Original) The rotor assembly of claim 2 wherein said permanent magnets are sized such that when said permanent magnets are inserted within said covers, there is an interference fit between said cover and said permanent magnet such that said permanent magnet is frictionally held within said cover.

11. (Original) The rotor assembly of claim 2 wherein said covers are made from a non-magnetic material.

12. (Currently Amended) A rotor assembly for an alternator comprising:

an electrical wire defining an excitation winding;

a first pole piece and a second pole piece, each having a generally circular body defining a center, an axis of rotation and an outer radial periphery;

a plurality of pole fingers spaced radially about and extending axially from said outer radial periphery of said first and second pole pieces parallel to said axis of rotation;

a plurality of mounting surfaces spaced radially about said outer radial periphery of said first and second pole pieces in between said pole fingers;

a plurality of permanent magnets positioned on said mounting surfaces of each of said first and second pole pieces;

a plurality of covers, each of said covers having tabs extending circumferentially from two sides thereof ~~therefrom~~ and being configured as a box

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shape and defining a cavity ~~adapted~~ to substantially encase one of said permanent magnets therein, said mounting surfaces of said first and second pole pieces ~~adapted to engage~~ engaging said tabs to secure said covers, with said permanent magnets substantially encased therein, to said mounting surfaces.

13. (Currently Amended) The rotor assembly of claim 12 wherein each of said pole fingers of said first pole piece includes a distal end and extends between said pole fingers of said second pole piece, said distal ends being positioned over said mounting surfaces of said second pole piece and ~~adapted to engage~~ engaging said covers to further secure said permanent magnets onto said mounting surfaces.

14. (Currently Amended) The rotor assembly of claim 12 wherein each of said pole fingers of said second pole piece includes a distal end and extends between said pole fingers of said first pole piece, said distal ends being positioned over said mounting surfaces of said first pole piece and ~~adapted to engage~~ engaging said covers to further secure said permanent magnets onto said mounting surfaces.

15. (Original) The rotor assembly of claim 12 wherein said permanent magnets are secured within said covers with an adhesive.

16. (Original) The rotor assembly of claim 12 wherein said permanent magnets are sized such that when said permanent magnets are inserted within said

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covers, there is an interference fit between said cover and said permanent magnet such that said permanent magnet is frictionally held within said cover.

17. (Original) The rotor assembly of claim 12 wherein said covers are made from a non-magnetic material.

Claims 18-24 are Cancelled.